

- 12 -

### CLAIMS

1 - Closure system, incorporated into a fuel-tank filler-pipe head, comprising a shutter (1, 16, 20) and a protection shield (10, 17, 25) for the shutter, said shield being movable substantially in one plane.

5        2 - System according to the preceding claim, characterized in that the plane in which the protection shield (10, 17, 25) is movable is a plane substantially perpendicular to the axis of the pipe.

3 - System according to either of the preceding claims, characterized in that the shutter (1, 16, 20) has the form of a metal-based movable plate, and in that  
10       the protection shield (10, 17, 25) is made from polyoxymethylene (POM) or from stainless steel.

4 - System according to any one of the preceding claims, characterized in that it comprises a locking mechanism activated with the aid of an actuator connected to a control button that is inactive as long as the vehicle's central  
15       locking system is activated.

5 - System according to any one of the preceding claims, characterized in that it comprises:

- 2 flaps, including a shutter flap (1) and a control flap (2) carrying the protection shield (10) ;
- 20    — a body (3) provided with an axis (4) around which the flaps (1, 2) are movable and recesses (5) of appropriate form for guiding the movement of the flaps; and
- a seal (6) placed between the shutter flap (1) and the body (3).

6 - System according to the preceding claim, characterized in that the body  
25       axis (4) is provided with a spring (7) compressed by the flaps (1, 2) in the locked position and imparting a helical movement to the flaps (1, 2), the guide recesses (5) in the body (4) also being of helical form and imparting a helical movement to the flaps (1, 2).

- 13 -

7 - System according to the preceding claim, characterized in that it also comprises a cover (8) comprising a hole (9) for clearing the filler pipe in the open position of the system, and in that the protection shield (10) is designed to close off the hole of the cover (9) in the closed, locked position of the system and  
5 to be movable and to be able to slide by translation over the cover (8) during unlocking/opening of the system, the control (2) and shutter (1) flaps themselves being movable below the cover (8).

8 - System according to any one of Claims 1 to 4, characterized in that the shutter comprises a plate (13) and a rotary ring (14) that collaborate via a  
10 bayonet system, and in that the protection shield (17) collaborates with the rotary ring either via a direct connection or via a rack system, the shield (17) and the rotary ring (14) therefore both being provided with notches (17').

9 - System according to any one of Claims 1 to 4, characterized in that it comprises a first locking mechanism that acts on the shutter (20) and a second  
15 locking mechanism that conditions a translational movement of the protection, shield (25).

10 - System according to the preceding claim, characterized in that:

- 20 — the first locking mechanism consists essentially of a rotary ring (19) and a plate (20), that also constitutes the system's shutter, the two elements collaborating by means of a bayonet system, and of a rod (21) connected to a fuel flap (22) on the one hand and to the rotary ring (19) on the other;
- 25 — the second locking mechanism comprises a mechanical device providing for the translational movement of the protection shield (25) and a control button (28) for this device that is accessible once the fuel flap (22) is open and the shutter's locking mechanism is deactivated;
- both locking mechanisms are integral with one another such that re-locking of the flap (22) locks both the protection shield (25) and the shutter (20).